

Notice of Allowability

Application No.

10/623,949

Examiner

Michael W. Talbot

Applicant(s)

KILLINGER ET AL.

Art Unit

3722

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 29 November 2006.
2. ☒ The allowed claim(s) is/are 1-6 and 9-14.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Monica S. Carter
MONICA CARTER
SUPERVISORY PATENT EXAMINER

EXAMINER'S AMENDMENT

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 29 November 2006 has been entered.

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Stephan A. Pendorf on Thursday, 01 February 2007.

The application has been amended as follows:

Claims:

(a) Claim 1, line 7, the character reference "the main cutting edge" has been changed to --a main cutting edge--.

(b) Claim 1, line 7, the character reference "the cutting position" has been changed to --a cutting position--.

Allowable Subject Matter

3. The following is an examiner's statement of reasons for allowance:

Claims 1-6 and 9-14 are allowed.

Claims 1 and 10 are the independent claims.

4. Regarding claim 1, the prior art of record fails to anticipate or make obvious a tool head having (1) "the active main cutting edges of the indexable cutting plates are subdivided along

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their length into at least two cutting segments in alignment with each other, wherein the indexable cutting plates are provided with an imprint in the area of the main cutting edge marking the individual cutting segments and wherein, each imprinted cutting segment of each main cutting edge is associated with one of the plate receptacles" and (2) "each of the various plate receptacles corresponds to only one of the cutting segments of the indexable cutting plates effective with the associated adjustment angle relative to the base body axis", solely or in combination, with a tool head having a base body, a tool shank, at least two plate receptacles for receiving respectively one indexable cutting plate having a main cutting edge in the cutting position exhibiting different adjustment angles relative to the base body axis, and identical indexable cutting inserts are provided in the different plate receptacles.

Ueda et al. '284 is the closest art of record.

Ueda et al. '284 shows in Figures 1,2,4 and 16 a tool head having a body (1) with an axis (0), a shank (2) projecting axially beyond the base body and adapted for being coupled (9) to a rotating machine spindle (8), and at least two blade receptacles (col. 8, lines 16-18) spaced apart in the circumferential direction for receiving respectively one indexable cutting insert (5B,5C), such that a main cutting edge (5b,5c) in a cutting position exhibits different adjustment angles (Figs. 2,4 and col. 8, lines 37-42) relative to the base body axis. Ueda et al. '284 shows the indexable cutting inserts being identical in shape (triangular with rounded points) and provided in different blade receptacles (Fig. 2) with respective active cutting edges. Ueda et al. '284 shows the tool head mounted with a reamer in advance of the indexable cutting inserts and displaceable axially relative to the base body (col. 8, lines 32-36).

Ueda et al. '284 lacks a tool head having (1) "the active main cutting edges of the indexable cutting plates are subdivided along their length into at least two cutting segments in alignment with each other, wherein the indexable cutting plates are provided with an imprint in

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the area of the main cutting edge marking the individual cutting segments and wherein, each imprinted cutting segment of each main cutting edge is associated with one of the plate receptacles" and (2) "each of the various plate receptacles corresponds to only one of the cutting segments of the indexable cutting plates effective with the associated adjustment angle relative to the base body axis".

Although it is well known to have an indexable cutting insert with multiple cutting edges and to show indicia marking to identify the specific index locations of the cutting inserts in a receptacle/pocket on the tool body, there is no teaching in the prior art of record that would, reasonably and absent impermissible hindsight, motivate one having ordinary skill in the art to so modify the teachings of Ueda et al. '284, noting that in Ueda et al. '284, the indexable cutting insert (5B,5C) has a single main cutting edge without being subdivided along its length into at least two cutting segments and therefore, also lacks (a) an imprint marking the individual cutting segments of the main cutting edge being associated with one of the plate receptacles and (b) each of the various plate receptacles does not corresponds to only one of the cutting segments of the indexable cutting plates effective with the associated adjustment angle relative to the base body axis. Thus, for at least the foregoing reasons, the prior art of record neither anticipates nor rendered obvious the present invention as set forth in independent claim 1.

5. Regarding claim 10, the prior art of record fails to anticipate or make obvious a tool head having (1) "the active main cutting edges of the indexable cutting plates are subdivided along their length into at least two non-overlapping cutting segments in alignment with each other," and (2) "each of the various plate receptacles corresponds to only one of the non-overlapping cutting segments of the indexable cutting plates effective with the associated adjustment angle relative to the base body axis", solely or in combination, with a tool head having a base body, a tool shank, at least two plate receptacles for receiving respectively one indexable cutting plate

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having a main cutting edge in the cutting position exhibiting different adjustment angles relative to the base body axis, and identical indexable cutting inserts are provided in the different plate receptacles.

Ueda et al. '284 is the closest art of record.

Ueda et al. '284 shows in Figures 1,2,4 and 16 a tool head having a body (1) with an axis (0), a shank (2) projecting axially beyond the base body and adapted for being coupled (9) to a rotating machine spindle (8), and at least two blade receptacles (col. 8, lines 16-18) spaced apart in the circumferential direction for receiving respectively one indexable cutting insert (5B,5C), such that a main cutting edge (5b,5c) in a cutting position exhibits different adjustment angles (Figs. 2,4 and col. 8, lines 37-42) relative to the base body axis. Ueda et al. '284 shows the indexable cutting inserts being identical in shape (triangular with rounded points) and provided in different blade receptacles (Fig. 2) with respective active cutting edges. Ueda et al. '284 shows the tool head mounted with a reamer in advance of the indexable cutting inserts and displaceable axially relative to the base body (col. 8, lines 32-36).

Ueda et al. '284 lacks a tool head having (1) "the active main cutting edges of the indexable cutting plates are subdivided along their length into at least two non-overlapping cutting segments in alignment with each other," and (2) "each of the various plate receptacles corresponds to only one of the non-overlapping cutting segments of the indexable cutting plates effective with the associated adjustment angle relative to the base body axis", solely or in combination, with a tool head having a base body, a tool shank, at least two plate receptacles for receiving respectively one indexable cutting plate having a main cutting edge in the cutting position exhibiting different adjustment angles relative to the base body axis, and identical indexable cutting inserts are provided in the different plate receptacles.

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Although it is well known to have an indexable cutting insert with multiple cutting edges, there is no teaching in the prior art of record that would, reasonably and absent impermissible hindsight, motivate one having ordinary skill in the art to so modify the teachings of Ueda et al. '284, noting that in Ueda et al. '284, the indexable cutting insert (5B,5C) has a single main cutting edge without being subdivided along its length into at least two non-overlapping cutting segments. Furthermore, each of the various plate receptacles does not corresponds to only one of the non-overlapping cutting segments of the indexable cutting plates effective with the associated adjustment angle relative to the base body axis. Thus, for at least the foregoing reasons, the prior art of record neither anticipates nor rendered obvious the present invention as set forth in independent claim 10.

Conclusion

6. Any inquiry concerning the content of this communication from the examiner should be directed to Michael W. Talbot, whose telephone number is 571-272-4481. The examiner's office hours are typically 8:30am until 5:00pm, Monday through Friday. The examiner's supervisor, Mrs. Monica S. Carter, may be reached at 571-272-4475.

In order to reduce pendency and avoid potential delays, group 3720 is encouraging Faxing of responses to Office Actions directly into the Group at FAX number 571-273-8300. This practice may be used for filling papers not requiring a fee. It may also be used for filing papers, which require a fee, by applicants who authorize charges to a USPTO deposit account. Please identify Examiner Michael W. Talbot of Art Unit 3722 at the top of your cover sheet.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



MWT
Examiner
01 February 2007



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SUPERVISORY PATENT EXAMINER